

PATENT
App. Ser. No.: 10/645,740
Atty. Dkt. No. ROC9200300203US1
PS Ref. No.: IBMK30203

REMARKS

This is intended as a full and complete response to the Office Action dated February 21, 2006, having a shortened statutory period for response set to expire on May 21, 2006. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1-42 are pending in the application. Claims 1-2, 5, 14-15, 17-18, 21-22, 25, 34-35, 37 and 41-42 have been amended. Applicants submit that the amendments do not introduce new matter.

Claim Rejections - 35 U.S.C. § 102

Claims 1-11, 13-31, and 33-42 are rejected under 35 U.S.C. 102(b) as being anticipated by *Risch* (No. 5,471,629).

Applicants respectfully traverse this rejection.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

In this case, *Risch* does not disclose "each and every element as set forth in the claim." Regarding claim 1 for example, *Risch* does not disclose a method that includes managing re-execution of a query by storing the initial query result in a temporary query result data structure ... and updating the temporary query result data structure on the basis of detected changes that occur to the database, as recited by claim 1. Claims 21 and 42 recite similar limitations for a computer readable medium and a data processing system.

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The Examiner argues that *Risch* discloses "storing the initial query result in a temporary query result data structure" at *Risch*, 8:6-8, which provides "[t]he system creates the Function Change table (block 202) and then proceeds with an update task as directed by the client (block 203)" and that the "preceding text clearly illustrates that a temporary query result data structure is a function change table and the system is the re-execution of the query." *Office action*, p.2. However, the cited passage does not disclose the claimed method step of "storing the initial query result in a temporary query result data structure." Instead, the passage describes a function change table used to store a log of update transactions. Specifically, *Risch* describes the "function change table" as follows:

The record of database update transactions is preferably kept by creating and updating a "Function Change" table during an "Update Session" procedure as illustrated in FIG. 2.

Risch, 8:2-5. In contrast to this, claim 1 recites storing the results of a database query in a temporary query result data structure. Because the "Function Change Table" of *Risch* does not store the results of a database query, Applicants submit that *Risch* does not disclose this limitation as recited by claims 1, 21 and 42.

Moreover, as *Risch* does not disclose this limitation, it does not (and indeed could not) disclose the step of "updating the temporary query result data structure on the basis of the detected database change," as recited by claims 1, 21 and 42. Nevertheless, the Examiner argues that the following passage discloses this limitation.

Determining whether the criterion for notification has been satisfied and, if so, notifying the appropriate clients, is preferably accomplished by means of the Check Monitors procedure as illustrated in FIG. 3. As described above, the procedure is initiated (block 301) by a procedure call generated during an update session (the procedure may also be called directly by a client as will be discussed in more detail in a subsequent paragraph). Any update function call which might have resulted in a change to a monitored attribute value is detected (block 302). In most instances this accomplished by reference to the Function Change table and to a "Function Dependence" table (to be described hereafter).

...

Because in this instance the procedure was called by a commit request made by an update client, the update client is the one which receives the

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notification. The Function Change table is cleared (block 307) and the procedure ends (block 308).

Risch, 8:15-24, 8:36-40. Specifically, the Examiner argues that "the preceding text clearly indicates that a Check Monitors procedure is a type of a trigger procedure that updates the temporary query data result, which is the Function Change table and further updates the client request, which is the initial query." *Office Action*, p.3. However, the "check monitors" procedure of *Risch* is called "if the client requests that such updates be committed a "Check Monitors" procedure is called (block 207)" as part of an "update session." *Risch*, 8:11-12. In other words, the "check monitors" procedure is used when a client is committing (i.e., making permanent) changes to a database. As recited by the present claims however, the temporary query data result is updated *in response to changes detected in the database*. Further, as demonstrated above, , the "function change table" does not store an initial query result, instead the function change table stores "a record of database update transactions" (i.e., a record of update transactions submitted, but not entered, into the database).

Still further, *Risch* fails to disclose the step recited by claim 1 of "when the query is submitted for re-execution against the database, returning the temporary query result data structure to the issuing entity." The Examiner asserts that *Risch* discloses this step at *Risch*, 8:46-54, which provides:

Then the saved change notification is sent to any other client which had requested monitoring of the changed attribute value (block 209). If there is another update task to perform (block 210), such task is performed (block 203) and the above-described steps are repeated.

Plainly, however, this passage is directed to sending messages to "other clients" that had requested monitoring of some attribute. Completely absent from this passage, and from *Risch* generally, is the claimed step of a query being submitted for re-execution.

Moreover, contrary to the examiner's assertion that the "requested monitoring is the query re-execution," *Office Action*, p.4., the monitors disclosed in *Risch* are not queries at all. Instead, *Risch* discloses that a "client program requests monitoring of an attribute of an object in the database according to a criterion which is any of four tuning

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parameters. The parameters include a change value parameter, a delay time parameter, a synchronous initiation parameter, and a nervousness parameter."

Accordingly, Applicants submit that claims 1, 21 and 41 are allowable, and allowance of these claims, and the claims dependent therefrom, is respectfully requested.

Regarding claims 14, 34 and 42, for all the foregoing reasons, Applicants submit that *Risch* does not disclose a method that includes retrieving a temporary query result data structure storing a query result obtained from a previous execution of the query, updating the temporary query result data structure on the basis of a detected database change, and if the query is submitted for re-execution against the database, returning the temporary query result data structure as a query result, as recited by claim 14. Claims 34 and 42 recite similar limitations for a computer readable medium and a data processing system. Accordingly, Applicants submit that claims 14, 34, 42 are allowable, and allowance of these claims, and the claims dependent therefrom, is respectfully requested.

Claim Rejections - 35 U.S.C. § 103

Claims 12 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Risch* in view of *Beckman* (U.S. Pub. No. 2003/0182197). Applicants respectfully traverse this rejection.

Claims 12 and 32 depend from claims 1 and 21, respectively. As Applicants believe the above remarks demonstrate that *Risch* does not anticipate claims 1 and 12, Applicants believe that dependent claims 12 and 32 are allowable, and allowance of these claims is respectfully requested.

Therefore, the claims are believed to be allowable, and allowance of the claims is respectfully requested.

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Conclusion

Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

If the Examiner believes any issues remain that prevent this application from going to issue, the Examiner is strongly encouraged to contact Gero McClellan, attorney of record, at (336) 643-3065, to discuss strategies for moving prosecution forward toward allowance.

Respectfully submitted, and
S-signed pursuant to 37 CFR 1.4,

/Gero G. McClellan, Reg. No. 44,227/

Gero G. McClellan
Registration No. 44,227
PATTERSON & SHERIDAN, L.L.P.
3040 Post Oak Blvd. Suite 1500
Houston, TX 77056
Telephone: (713) 623-4844
Facsimile: (713) 623-4846
Attorney for Applicant(s)